

CLAIMS

We claim:

- 1 1. A method for creating a best-match object at run time, comprising the
2 steps of:
3 receiving a request for an object;
4 polling object proxies for a confidence level representing the capability of each
5 respective proxy to generate the requested object;
6 selecting one of the proxies based on the polled confidence level; and
7 directing the selected proxy to create the object.
- 1 2. The method of claim 1, wherein the step of receiving a request for an
2 object comprises receiving indicia of a peripheral device.
- 1 3. The method of claim 2, wherein indicia comprises a device identifier.
- 1 4. The method of claim 1, wherein the step of selecting one of the proxies
2 comprises comparing each confidence level with a previously received confidence
3 level.
- 1 5. The method of claim 1, wherein the step of selecting one of the proxies
2 comprises storing an index associated with a proxy having a greater confidence level.
- 1 6. The method of claim 1, wherein the step of directing the select one of
2 the proxies to create the object generates a peripheral device driver.
- 1 7. The method of claim 1, further comprising the step of:
2 registering a new proxy capable of creating an object designated for use with a
3 new peripheral device.

1 8. An object generator, comprising:
2 means for receiving indicia of an object to be created;
3 means for identifying a select one of a plurality of object proxies responsive to
4 a respective confidence level associated with each object proxy; and
5 means for directing the selected object proxy to create the object.

1 9. The object generator of claim 8, wherein the means for receiving is
2 responsive to a user interface.

1 10. The object generator of claim 8, wherein the means for receiving is
2 responsive to a communication from a device associated with the object.

1 11. The object generator of claim 8, wherein the means for identifying a
2 select one of a plurality of object proxies comprises means for comparing each
3 respective confidence level with a previously received confidence level.

1 12. The object generator of claim 8, wherein the means for identifying a
2 select one of a plurality of object proxies comprises means for comparing each
3 confidence level with a maximum confidence level.

1 13. The object generator of claim 12, wherein the means for identifying a
2 select one of a plurality of object proxies identifies an object proxy that returns the
3 maximum confidence level as the selected object proxy.

1 14. An object generator, comprising:
2 an object factory configured to poll object proxies capable of producing
3 respective objects responsive to system needs; and
4 a pool including the object proxies for producing the object, the pool
5 configured to receive indicia of the object from the object factory and each of the
6 plurality of object proxies configured to return a respective confidence level
7 responsive to the indicia.

1 15. The object generator of claim 14, further comprising:
2 an interface associated with the object factory, the interface configured to
3 receive a request for the object.

1 16. The object generator of claim 15, wherein the interface is configured to
2 communicate with a user interface.

1 17. The object generator of claim 15, wherein the interface is configured to
2 communicate with a device that will interact with the object.

1 18. The object generator of claim 15, wherein the interface is configured to
2 receive a device identifier.

1 19. The object generator of claim 15, wherein the interface is configured to
2 receive a device identifier associated with a printer.

1 20. The object generator of claim 14, wherein the object factory comprises
2 a comparator configured to determine which of a first confidence level associated with
3 a first object proxy and a second confidence level associated with a second object
4 proxy is more likely to produce an object most responsive to the system need.

1 21. The object generator of claim 20, wherein when the comparator is
2 configured to recognize a maximum confidence level, the object factory is configured
3 to direct the object proxy associated with the maximum confidence level to create an
4 object.

1 22. The object generator of claim 20, wherein when the comparator fails to
2 recognize a maximum confidence level, the object factory is configured to direct the
3 object proxy associated with the greatest confidence level to create an object.

1 23. The object generator of claim 14, further comprising:
2 an object store configured to receive an object generated by an object proxy.

1 24. A computer-readable medium, comprising:
2 logic configured to receive a request for an object;
3 logic configured to, in response to receiving the request, poll a plurality of
4 object proxies for a confidence level representing the capability of the respective
5 object proxy to generate the requested object;
6 logic configured to select one of the plurality of proxies responsive to the
7 polled confidence level; and
8 logic configured to direct the selected proxy to create the object.

1 25. The computer-readable medium of claim 24, wherein the system need
2 comprises interfacing with a peripheral device.

1 26. The computer-readable medium of claim 25, wherein the logic
2 configured to poll communicates with a plurality of object proxies.

1 27. The computer-readable medium of claim 25, wherein the plurality of
2 object proxies does not represent an exact match of the system need.

1 28. The computer-readable medium of claim 26, wherein the plurality of
2 object proxies are each configured to represent the capabilities of a respective device
3 driver that can be generated by the respective object proxy.

1 29. The computer-readable medium of claim 28, wherein each respective
2 device driver comprises a printer driver.

1 30. The computer-readable medium of claim 28, wherein the logic
2 configured to poll a plurality of object proxies is further configured to determine that
3 the respective device driver that can be generated is appropriate without loading or
4 otherwise communicating with the actual device driver.

1 31. An object generator, comprising:
2 an object factory configured to receive a device identifier;
3 a pool having an interface configured to communicate with the object factory,
4 the pool containing object proxies capable of producing respective objects; and
5 an object store coupled to the pool and configured to receive and retain objects
6 generated by selected object proxies.

1 32. The object generator of claim 31, wherein the object factory is
2 configured to poll a plurality of object proxies for a confidence level representing the
3 capability of the respective object proxy to generate an object suited for operating
4 with a device responsive to the device identifier.

1 33. A method for creating a best-match object at run time, comprising the
2 steps of:
3 loading a set of object proxies;
4 receiving indicia of a desired object for communicating with a peripheral
5 device;
6 directing each of the object proxies to forward a confidence level representing
7 the capability of each respective proxy to generate the desired object responsive to the
8 indicia;
9 receiving a confidence level associated with an object proxy;
10 comparing the confidence level to a maximum confidence level, when the
11 confidence level matches the maximum confidence level, directing the associated
12 object proxy to generate an object, otherwise, recording the confidence level; and
13 determining if the confidence level exceeds the confidence level associated
14 with a previously recorded confidence level, when the confidence level exceeds a
15 previously recorded confidence level, recording an object proxy identifier, otherwise,
16 determining if there are additional object proxies in the set, when there are additional
17 object proxies, repeating the receiving a confidence level, comparing, and determining
18 if the confidence level exceeds steps, otherwise, using the object proxy identifier to
19 direct the associated object proxy to generate an object.

1 34. A computer-readable medium, comprising:
2 logic configured to load a set of object proxies, each object proxy configured
3 to generate a respective object;
4 logic configured to receive indicia of a desired object for communicating with
5 a peripheral device;
6 logic configured to direct each of the object proxies to forward a confidence
7 level representing the capability of each respective proxy to generate the desired
8 object;
9 logic configured to receive the confidence level from respective object
10 proxies;
11 logic configured to compare the confidence level to a maximum confidence
12 level, when the confidence level matches the maximum confidence level, the
13 associated object proxy is directed to generate an object, otherwise, the logic records
14 the confidence level; and determines if the confidence level exceeds the confidence
15 level associated with a previously recorded confidence level, when the confidence
16 level exceeds a previously recorded confidence level, the logic records an object
17 proxy identifier, otherwise, the logic determines if there are additional object proxies
18 in the set, when there are additional object proxies, the logic receives a confidence
19 level associated with an object proxy that has not reported a confidence level, and
20 repeats the maximum confidence level and previously recorded confidence level
21 comparisons, otherwise, the logic uses the object proxy identifier to direct the
22 associated object proxy to generate an object.

1 35. A method for creating a best-match printer driver, comprising the steps
2 of:
3 receiving a request to use a printer;
4 polling printer driver proxies for a confidence level representing the capability
5 of each respective printer driver proxy to generate a driver that when applied to data
6 and forwarded to the printer will produce a useful representation of the data;
7 selecting one of the printer driver proxies based on the polled confidence level;
8 and
9 directing the selected printer driver proxy to generate the driver.

1 36. The method of claim 35, wherein the step of receiving a request to use a
2 printer comprises receiving a device identifier.

1 37. The method of claim 35, wherein the step of receiving a request to use a
2 printer comprises receiving indicia of a printer capability.

1 38. The method of claim 35, wherein the step of selecting one of the printer
2 driver proxies comprises comparing each confidence level with a previously received
3 confidence level.

1 39. The method of claim 35, wherein the step of selecting one of the printer
2 driver proxies comprises storing an index associated with a printer driver proxy
3 having a greater confidence level.

1 40. A computer-readable medium, comprising:
2 logic configured to receive a request to use a printer;
3 logic configured to poll printer driver proxies for a confidence level
4 representing the capability of each respective printer driver proxy to generate a driver
5 that when applied to data and forwarded to the printer will produce a useful
6 representation of the data;
7 logic configured to select one of the printer driver proxies based on the polled
8 confidence level; and
9 logic configured to direct the selected printer driver proxy to generate the
10 driver.

1 41. The computer-readable medium of claim 40, wherein the logic
2 configured to receive a request to use a printer is configured to receive a device
3 identifier.

1 42. The computer-readable medium of claim 40, wherein the logic
2 configured to receive a request to use a printer is configured to receive indicia of a
3 printer capability.

1 43. The computer-readable medium of claim 40, wherein the logic
2 configured to select one of the printer driver proxies is configured to compare
3 confidence levels with a previously received confidence level.

1 44. The computer-readable medium of claim 40, wherein the logic
2 configured to select one of the printer driver proxies is configured to store an index
3 associated with a printer driver proxy having a greater confidence level.